Amendments t the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A radio communication apparatus comprising:

an ~~first~~ antenna;

a ~~first~~ transmitting apparatus of outputting a transmitting signal in a first frequency band;

a ~~first~~ duplexer, connected to said first antenna and having a single-phase input terminal and a balanced output terminal, of conveying said transmitting signal inputted to said single-phase input terminal to said first antenna and outputting a receiving signal in a second frequency band different from said first frequency band received from said first antenna substantially as a differential signal from said balanced output terminal; and

a ~~first~~ receiving apparatus connected to said balanced output terminal and having a circuit in which a gain of a signal of a differential component is higher than that of a signal of an in-phase component, or a loss of the signal of the differential component is lower than that of the signal of the in-phase component.

2. (Currently Amended) The radio communication apparatus according to claim 1, wherein said first duplexer has a ~~first~~ phase shifter, a second phase shifter, a third phase shifter, a fourth phase shifter, a fifth phase shifter and a sixth phase shifter;

said ~~first~~ antenna is connected to said first phase shifter and said second phase shifter;

said ~~first~~ receiving apparatus is connected to said ~~first~~ phase shifter and said second phase shifter via said third phase shifter and said fourth phase shifter respectively;

said ~~first~~ transmitting apparatus is connected to said first phase shifter and said second phase shifter via said fifth phase shifter and said sixth phase shifter respectively;

said third phase shifter and said fourth phase shifter are connected to said fifth phase shifter and said sixth phase shifter respectively;

a difference in a phase shifting amount between said first phase shifter and said second phase shifter is substantially 90 degrees;

the difference in the phase shifting amount between said third phase shifter and said fourth phase shifter is substantially 90 degrees; and

the difference in the phase shifting amount between said fifth phase shifter and said sixth phase shifter is substantially - 90 degrees.

3. (Currently Amended) A first duplexer comprising a single-phase input terminal connected to a ~~first~~ transmitting apparatus and a balanced output terminal connected to a ~~first~~ receiving apparatus, wherein:

said ~~first~~ transmitting apparatus outputs a transmitting signal in a first frequency band, conveys said transmitting signal inputted to said single-phase input terminal to ~~said first~~ an antenna and outputs a receiving signal in a second frequency band different from said first frequency band received from said ~~first~~ antenna substantially as a differential signal to said balanced output terminal; and

said ~~first~~ receiving apparatus has a circuit in which a gain of a signal of a differential component is higher than that of a signal of an in-phase component, or a loss of the signal of the differential component is lower than that of the signal of the in-phase component.

4. (Currently Amended) An antenna apparatus comprising:

~~a second~~ one antenna having a first feeding point of feeding a receiving signal and also having two or more polarized waves; and

~~a third~~another antenna placed along with said ~~second~~ one antenna and having a second feeding point of feeding the receiving signal and also having two or more polarized waves, wherein:

said first feeding point is placed substantially on an exciting direction side of the receiving signal of said ~~second~~ another antenna; and

said second feeding point is placed substantially on an opposite side to the exciting direction of the receiving signal of said ~~third~~ another antenna.

5. (Currently Amended) The antenna apparatus according to claim 4, wherein said ~~second~~ one antenna has a third feeding point of feeding a transmitting signal;

said ~~third~~ another antenna has a fourth feeding point of feeding a transmitting signal;

said third feeding point is placed substantially on an opposite side to the exciting direction of the transmitting signal of said ~~second~~ one antenna; and

said fourth feeding point is placed substantially on the opposite side to the exciting direction of the transmitting signal of said ~~third~~ another antenna.

6. (Currently Amended) A radio communication apparatus comprising:

a ~~second~~ transmitting apparatus of outputting a transmitting signal;

the antenna apparatus according to claim 5;

a ~~second~~ duplexer, connected to said ~~second~~ one antenna and said ~~third~~ another antenna and having a single-phase input terminal and a balanced output terminal, of conveying said transmitting signal inputted to said single-phase input terminal to said ~~second~~ one antenna and said ~~third~~ another antenna and outputting a receiving signal received by said ~~second~~ one antenna and said ~~third~~ another antenna from said balanced output terminal; and

a ~~first~~ receiving apparatus connected to said balanced output terminal and having a circuit in which a gain of a signal of a differential component is higher than that of a signal of an

in-phase component, or a loss of the signal of the differential component is lower than that of the signal of the in-phase component.

7. (Currently Amended) A radio communication apparatus comprising:

a ~~first~~ antenna;

a ~~third~~ transmitting apparatus of outputting a transmitting signal as a differential signal;

a ~~third~~ duplexer, connected to said ~~first~~ antenna and having a balanced input terminal and a single-phase output terminal, of conveying said transmitting signal inputted to said balanced input terminal as a single-phase signal to said ~~first~~ antenna and outputting a single-phase receiving signal received by said ~~first~~ antenna to said single-phase output terminal; and

a ~~second~~ receiving apparatus connected to said single-phase output terminal.

8. (Currently Amended) The radio communication apparatus according to claim 7, wherein said ~~third~~ duplexer has a ~~seventh~~ first phase shifter, ~~an~~ a second ~~eighth~~ phase shifter, a ~~ninth~~ third phase shifter, a ~~tenth~~ fourth phase shifter, ~~an eleventh~~a fifth phase shifter and a ~~twelfth~~ sixth phase shifter;

said ~~first~~ antenna is connected to said ~~seventh~~ first phase shifter and said ~~eighth~~ second phase shifter;

said ~~second~~ receiving apparatus is connected to said ~~seventh~~ first phase shifter and said ~~eighth~~ second phase shifter via said ~~ninth~~ third phase shifter and said ~~tenth~~ fourth phase shifter respectively;

said ~~third~~ transmitting apparatus is connected to said ~~seventh~~ first phase shifter and said ~~eighth~~ second phase shifter via said ~~eleventh~~ fifth phase shifter and said ~~twelfth~~ sixth phase shifter respectively;

said ~~ninth~~ third phase shifter and said ~~tenth~~ fourth phase shifter are connected to said ~~eleventh~~ fifth phase shifter and said ~~twelfth~~ sixth phase shifter respectively;

a difference in a phase shifting amount between said ~~seventh~~ first phase shifter and said ~~eighth~~ second phase shifter is substantially - 90 degrees;

the difference in the phase shifting amount between said ~~ninth~~ third phase shifter and said ~~tenth~~ fourth phase shifter is substantially 90 degrees;

the difference in the phase shifting amount between said ~~eleventh~~ fifth phase shifter and said ~~twelfth~~ sixth phase shifter is substantially - 90 degrees.

9. (Currently Amended) A radio communication apparatus comprising:

~~fourth~~ one and ~~fifth~~ another antennas;

a ~~third~~ transmitting apparatus of outputting a transmitting signal as a differential signal;

a ~~fourth~~ duplexer, connected to said ~~fourth~~ antenna and said ~~fifth~~ another antenna and having a balanced input terminal and a single-phase output terminal, of conveying said transmitting signal inputted to said balanced input terminal to said ~~fourth~~ one antenna and said ~~fifth~~ another antenna and outputting a receiving signal received by said ~~fourth~~ one antenna and said ~~fifth~~ another antenna as a single-phase signal to said single-phase output terminal; and

a ~~second~~ receiving apparatus connected to said single-phase output terminal, and wherein said ~~fourth~~ one and ~~fifth~~ another antennas are formed and placed to radiate said transmitting signal substantially as the differential signal and convey said receiving signal substantially as an in-phase signal to said ~~fourth~~ duplexer.

10. (Currently Amended) The radio communication apparatus according to claim 9, wherein said ~~fourth~~ one and ~~fifth~~ another antennas are formed and placed to convey said receiving signal as the differential signal to said ~~third~~ duplexer instead of being formed and placed to convey said receiving signal as an in-phase signal to said ~~fourth~~ duplexer; and

said ~~fourth~~ duplexer converts said receiving signal inputted as the differential signal into the in-phase signal and outputs it as the single-phase signal to said single-phase output terminal.

11. (Currently Amended) A radio communication apparatus comprising:

~~sixth~~ one and ~~seventh~~ another antennas;

a ~~third~~ transmitting apparatus of outputting a transmitting signal as a differential signal;

a ~~fifth~~ duplexer, connected to said ~~sixth~~ one antenna and said ~~seventh~~ another antenna and having a balanced input terminal and a balanced output terminal, of conveying said transmitting signal inputted to said balanced input terminal to said ~~sixth~~ one antenna and said ~~seventh~~ another antenna and outputting a receiving signal received by said ~~sixth~~ one antenna and said ~~seventh~~ another antenna as the differential signal to said balanced output terminal, and outputting a part of said transmitting signal substantially as an in-phase signal to said balanced output terminal; and

a ~~first~~ receiving apparatus connected to said balanced output terminal and having a circuit in which a gain of a signal of a differential component is higher than that of a signal of an in-phase component, or a loss of the signal of the differential component is lower than that of the signal of the in-phase component.

12. (Currently Amended) The radio communication apparatus according to claim 11, wherein said ~~fifth~~ duplexer has a ~~thirteenth~~first phase shifter, a ~~fourteenth~~second phase shifter, a ~~fifteenth~~third phase shifter, a ~~sixteenth~~fourth phase shifter, a ~~seventeenth~~fifth phase shifter and an ~~eighteenth~~sixth phase shifter;

said ~~sixth~~ one antenna and said ~~seventh~~ another antenna are connected to said ~~thirteenth~~first phase shifter and said ~~fourteenth~~second phase shifter respectively;

said ~~first~~ receiving apparatus is connected to said ~~thirteenth~~first phase shifter and said ~~fourteenth~~second phase shifter via said ~~fifteenth~~third phase shifter and said ~~sixteenth~~fourth phase shifter respectively;

said ~~third~~ transmitting apparatus is connected to said ~~thirteenth~~first phase shifter and said ~~fourteenth~~second phase shifter via said ~~seventeenth~~fifth phase shifter and said ~~eighteenth~~sixth phase shifter respectively;

said ~~fifteenth~~third phase shifter and said ~~sixteenth~~fourth phase shifter are connected to said ~~seventeenth~~fifth phase shifter and said ~~eighteenth~~sixth phase shifter respectively;

a difference in a phase shifting amount between said ~~thirteenth~~first phase shifter and said ~~fourteenth~~second phase shifter is substantially - 90 degrees;

the difference in the phase shifting amount between said ~~fifteenth~~third phase shifter and said ~~sixteenth~~fourth phase shifter is substantially 90 degrees; and

the difference in the phase shifting amount between said ~~seventeenth~~fifth phase shifter and said ~~eighteenth~~sixth phase shifter is substantially 90 degrees.

13. (Currently Amended) The radio communication apparatus according to any one of claims 1, 6, 11 and 12, wherein said ~~first~~ receiving apparatus has an amplifier in which the gain of the signal of the differential component is higher than that of the signal of the in-phase component.

14. (Currently Amended) The radio communication apparatus according to any one of claims 1, 6, 11 and 12, wherein said ~~first~~ receiving apparatus has a filter in which the loss of the differential signal is lower than that of the signal of the in-phase component.

15. (Currently Amended) The radio communication apparatus according to claim 13, wherein said ~~first~~ receiving apparatus has a down mixer of down-converting said receiving signal being connected to a subsequent stage to said amplifier; and

said down mixer has the gain of the differential signal higher than that of the signal of the in-phase component or the loss of the differential signal lower than that of the signal of the in-phase component.

16. (Original) The radio communication apparatus according to claim 15, having:

a first transistor of having one of the receiving signals as said differential signals inputted to a base side thereof; and

a second transistor of having the other of the receiving signals as said differential signals inputted to the base side thereof, and wherein:

an emitter side of said first transistor is connected to an emitter side of said second transistor; and

a connection point thereof is connected to a ground via a first inductor having a predetermined inductance.

17. (Currently Amended) A radio communication apparatus comprising:

a ~~second~~ transmitting apparatus of outputting a transmitting signal;

an antenna apparatus;

a ~~sixth~~ duplexer, connected to said antenna apparatus and having a single-phase input terminal and a balanced output terminal, of conveying said transmitting signal inputted to said single-phase input terminal to said antenna apparatus and outputting a receiving signal received by said antenna apparatus from said balanced output terminal; and wherein:

said ~~sixth~~ duplexer has an impedance for a differential signal in a frequency band of said receiving signal higher than the impedance for a single-phase signal in the frequency band of said transmitting signal.

18. (Currently Amended) The radio communication apparatus according to claim 17, wherein said ~~sixth~~ duplexer does not substantially pass the differential signal in the frequency band of said receiving signal but passes the single-phase signal in the frequency band of said transmitting signal substantially without a loss.

19. (Currently Amended) The radio communication apparatus according to claim 18, wherein said ~~sixth~~ duplexer has two 1/4 wavelength lines having length of substantially 1/4 of the wavelength of the frequency band of said receiving signal, and said single-phase signal is conveyed to one side of each of said 1/4 wavelength lines and said antenna apparatus is connected to the other side of each of said 1/4 wavelength lines.

20. (Currently Amended) The radio communication apparatus according to claim 17, wherein said ~~sixth~~ duplexer has a parallel resonance circuit to which said single-phase signal is conveyed at a middle point of the impedance thereof, and said parallel resonance circuit resonates in the frequency band of said receiving signal.

21. (Currently Amended) A radio communication method comprising the steps of:

conveying to a ~~first~~ antenna a transmitting signal in a first frequency band inputted to a single-phase input terminal of a ~~first~~ duplexer;

outputting a receiving signal in a second frequency band different from said first frequency band received from said ~~first~~ antenna substantially as a differential signal from a balanced output terminal of said ~~first~~ duplexer; and

as to said receiving signal substantially outputted as the differential signal, rendering a gain of a signal of a differential component higher than that of a signal of an in-phase component, or rendering a loss of the signal of the differential component lower than that of the signal of the in-phase component.